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REMARKS

As a preliminary matter, Applicants thank the Examiner for the courtesy shown to Applicants' representative, Josh C. Snider, in the series of telephone interviews which concluded on March 11, 2004. The independent claims of the present invention were discussed, and agreement was not reached regarding the claims in their form as last filed.

Proposed amendments to the claims, however, were also discussed in the telephone interview, and agreement was reached that such proposed amendments would overcome the outstanding rejections of record. Accordingly, in the interest of expediting prosecution, the claims of the present invention have been amended, with minor variations, according to the agreed upon proposed amendments submitted in the telephone interview. Support for the bulk of the proposed substantive amendments can be found on pages 11 (lines 19-20) and 12 (lines 8-23) of the Specification, as well as elsewhere throughout the description of the several embodiments.

As a second preliminary matter, claim 20 stands objected to for informalities. Accordingly, claim 20 of the present invention has been amended to correct for the noted grammatical informality. Reconsideration and withdrawal are therefore respectfully requested in light of this amendment.

Claims 1-14, 16-17, and 20 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite. All of the claims of the present invention

have been amended to correct for grammatical inconsistencies, as noted by the Examiner, and Applicants respectfully traverse in light of these amendments.

Claims 1, 6-8, and 13-20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesan in view of Kaufman. Claims 1, 8, and 18-20 have been amended to incorporate the substance of the agreed-upon language proposed in the telephone interview, as well as an additional limitation in independent claims 1 and 8 featuring that the encrypted keys are written to the storage medium when initializing the storage medium. Applicants respectfully traverse the rejection in light of these amendments.

The independent claims now more clearly recite that each unit storage area of the plurality on the storage medium is assigned a different random key, and the assignment of this different random key to each unit storage area is based on the particular unit storage area to which the data, once encrypted, is to be stored. Applicants respectfully submit that neither of the two cited references, whether taken alone or in combination, teaches or suggests any such features, or that the encrypted keys are written to the storage medium when it is initialized. Accordingly, Applicants submit that the outstanding rejection has been overcome by these amendments.

Claims 2 and 9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesan and Kaufman, and further in view of Cruts et al. (U.S. 4,780,905). Applicants respectfully traverse this rejection in light of the amendments discussed above. Claims 2 and 9 depend from independent claims 1

and 8 respectively, and therefore include all of the features of the respective base claim, plus additional features.

Claims 3-4 and 10-11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesan and Kaufman, and further in view of Schneier, Applied Cryptography. Applicants respectfully traverse this rejection as well in light of the amendments noted above. Claims 3 and 4 depend from independent claim 1, and claims 10 and 11 depend from independent claim 8.

Claims 5 and 12 stand rejected under 35 U.S.C. 103 (a) as being unpatentable over Ganesan and Kaufman, and further in view of Blakley et al. (U.S. 5,677,952). Applicants respectfully traverse this rejection for the reasons discussed above. Claim 5 depends from independent claim 1, and claim 12 indirectly depends from independent claim 8.

Claims 1-2, 6-9, 13-14, and 16-20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Bertina et al. (U.S. 5,682,027). Applicants respectfully traverse this rejection for reasons similar to those discussed above. Bertina does not disclose or suggest to generate a different random key for each unit storage area on a storage medium or that keys are assigned according to particular unit portions of the medium.

Bertina does disclose that data for storage is encrypted by its security module using a specific cipher key that is related to the "memory area" that the data is to be stored in. (Col. 2, lines 4-7). It is clear, however, from the complete teachings of Bertina, that such cipher keys are not assigned according to a

particular "memory area" within a larger memory unit, but instead that the "area of memory" as a whole has its own specific cipher key for accessing the memory as separate from the portable device and host system.

Bertina discloses an EEPROM 19 of nonvolatile memory which contains a plurality of data files 33, which in turn each comprise one or more records 35. (See col. 6, lines 47-54). These smaller portions of the entire memory area 19, however, are not each assigned a different generated random key, or even a different cipher key, but instead are selectively accessed only through the use of 16 passwords. (See col. 6, lines 60-61). The present invention, on the other hand, clearly recites passwords as being different from the generated random key.

Furthermore, Bertina expressly teaches that the disclosed cipher key is assigned according to the serial remote identification state, which state is only entered as one of two possibilities. (See col. 8, lines 40-43). Accordingly, Bertina fails to teach or suggest a different generated random key for each unit storage area of its nonvolatile memory 19, and therefore the Section 103 rejection based on Bertina is respectfully traversed.

Claims 3-4 and 10-11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Bertina and Kaufman, and further in view of Schneier. Applicants respectfully traverse this rejection for at least the reasons discussed above in traversing the rejections based on other combinations of these three references.

Claims 5 and 12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Bertina and Kaufman, and further in view of Blakley. Applicants also respectfully traverse this rejection for the reasons discussed above regarding these prior art references individually, and in other combinations.

Lastly, Applicants also thank the Examiner for his helpful request of Applicants to help clarify differences between the present invention and the additional Shear reference (U.S. 4,827,508), which has been cited in the outstanding Office Action as being pertinent prior art to the present invention. Applicants appreciate the opportunity to clarify these differences before a subsequent Office Action is potentially issued.

Although related to the subject matter of the present invention, Shear does not teach or suggest the specifically recited features of the present invention. Shear discloses a storage medium 100 that is divided into at least an index portion 102 and an encrypted database portion 104. The encrypted database portion 104 is further divided into predefined blocks of digital data 106, which themselves are even further divided into index key fields 108a, encrypted database information fields 108b, and decryption key/error correction fields 108c. (See Fig. 3; col. 10, lines 19-27). Shear further teaches that the system 10 checks the authority of a user identification and/or password to access the database by comparing with a list of authorized users stored in the memory 314. (See col. 15, lines 3-21). An index of a coded file is accessed by a random generated password included in the database list, and the encoded file is decrypted.

Shear is different from the present invention in several respects. First, Shear does not generate a different random key for each area of its medium 100. In fact, Shear remains silent regarding the use of random key data. Second, Shear teaches that the index portion is either not encrypted at all (see Fig. 2), or encrypted only as a separate process from any encryption of the memory blocks 106. The present invention, on the other hand, specifically features that each unit storage area of the storage medium has its own different generated random key, and that these keys are all generated as part of the same reading and writing processes.

Third, all of the different areas, 108a, 108b, 108c, are separately encrypted, but are not each assigned their own different generated random key. Applicants further note that the decryption field 108c, although occurring in each block 106 (but not the index 102), is not equivalent to the generated random key of the present invention. Shear specifically teaches that the field 108c is not even always required for decryption, whereas in the present invention, the generated random key is always generated, and assigned and utilized for each and every unit storage area of the storage medium.

Fourth, the key in file 314 is not directly related to the random password generated. In other words, Shear fails to teach or suggest to encrypt the random key with the password itself, write the encrypted key to the medium, and encrypt the data on the medium with this encrypted random key, as is featured in the present invention, as amended. Accordingly, for at least these reasons, Shear is

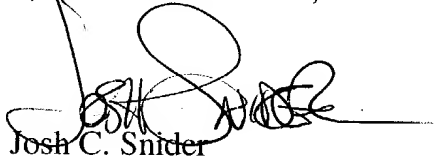
different from the present invention, and therefore would not read upon the present invention.

For all of the foregoing reasons, Applicants submit that this Application, including claims 1-14 and 16-20, is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if further interviews would also help expedite prosecution.

Respectfully submitted,

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